UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202 – 2733

Office of the Regional Administrator

The Honorable Stevan Pearce
United States House of Representatives
Washington, D.C. 20510

Dear Congressman Pearce:

Thank you for your letter of September 13, 2016, to the U.S. Environmental Protection Agency (EPA) Region 6 regarding your concerns about groundwater sampling activities at the Homestake Mining Company Site. EPA is committed to working closely with our federal and State partners to address radionuclide contamination from the Homestake site and other sources in the San Mateo Creek Basin. This letter is intended to address your specific concerns and provide some additional background.

In your letter you seek clarification on why EPA is now undertaking further groundwater sampling after having approved groundwater cleanup standards for the Homestake Mining Company Superfund Site in 2006. You also reference the Nuclear Regulatory Commission (NRC) letter approving the cleanup standards in 2007. Your letter further states that since both the EPA and the NRC have approved the groundwater protection standards (GWPS) at the site, the new EPA actions appear to be duplicative and unnecessary, and poses several specific questions for EPA response.

As you may know, in 2009 EPA Region 6 and other tribal, state and federal agencies formulated a Five Year Plan to assess and address legacy uranium contamination in the Grants Mining District in northwestern New Mexico. The Five Year Plan focuses on legacy ground water contamination, as well as contamination in surface and subsurface soil and other environmental media. Among many other issues, EPA is attempting to address sources of radionuclide contamination in ground water through isotopic analysis to determine whether the origin is naturally occurring or anthropogenic, and if anthropogenic, whether it derives from mining or mill wastes. Groundwater sampling in the San Mateo Creek Basin and other parts of the Grants Mining District has yielded some unexpected discoveries: contamination in water wells that are the sole source of domestic-use water for the owners; potential contamination of naturally-occurring aquifers by an artificial (mine-water discharge) alluvial aquifer moving through the Basin; aquifer layers underlying the same surface location flowing in different directions due to complex geological features. Ongoing investigations are yielding new information about legacy uranium contamination in the San Mateo Creek Basin. The Homestake Mining Company Superfund Site lies at the southern-most part of the Basin. As EPA learns more about the area-wide ground water, some of the findings may call into question prior conclusions about the Homestake Site.

With that overall context, please refer to the enclosure for answers to your specific questions. If you have any additional questions, please contact me at (214) 665-2100, or your staff may contact Ms. Cynthia Fanning, Congressional Liaison, at (214) 665-2142.

Sincerely,

Ron Curry
Regional Administrator

Enclosures (2)

cc: The Honorable Allison Macfarlane
Chair, U.S. Nuclear Regulatory Commission

6SF-RL:APPAJI – CONTROL R6-16-001-2438 Pearce – Request for Info. Homestake Mining

APPAJI	ATKINS	MEYER	TRAVIS	PEYCKE	PHILLIPS	EDLUND
6SF-RL	6SF-RL	6SF-R	6RC-S	6RC-S	6SF-D	6SF

Enclosure 1
Answers to Specific Questions in September 13, 2016 Letter

1. Would you please provide my office with an explanation of the decision to conduct these groundwater sampling activities?

As you may know, the site cleanup standards for radionuclides in groundwater and other media are premised in part on background levels of contaminants of concern where such background levels exceed federal or state standards. One of the background monitoring wells (DD) located upgradient of the Site has levels of uranium nearly five times as high as the federal drinking water standard. This well has been designated as one of nine background wells and the elevated levels of uranium have been established as the cleanup level by the NRC. In August 2014, residents who live near the Site and are part of the Bluewater Valley Downstream Alliance (BVDA) shared historical information with EPA from well drilling records dating back to 1960. These records were obtained by BVDA from the New Mexico Environment Department archived files. Based on the well drilling records, BVDA contended that historically there was no alluvial water at the Site and that contaminated water from the Site operations has impacted the background wells. BVDA and another advocacy group, the Multicultural Alliance for Safe Environment (MASE), engaged Dr. Tom Meyers, an independent consultant, to prepare a conceptual transport model of groundwater movement through the Site. Dr. Meyer's report (Conceptual Flow and Transport Model, March 2015) asserted that the conceptual transport model suggested that uranium contamination downgradient and upgradient of the Site is due to seepage from the Large Tailings Pile (LTP) and that the well (DD) used to represent background had been impacted by Homestake operations.

Based on BVDA's request in March 2015, EPA engaged the United States Geological Survey (USGS) to conduct an independent review of Dr. Meyer's report. The information presented by BVDA combined with data from EPA's groundwater investigation in the San Mateo Basin raised substantive questions about background levels of radionuclides and other constituents in groundwater at the Site. In its review of the report, the USGS acknowledged the plausibility of seepage contamination impacting the background well. The USGS recommended collecting multiple lines of evidence, including groundwater sampling and borehole geophysics, at select wells to test the hypothesis that uranium contamination upgradient of the LTP is due to mill tailings seepage from the Homestake Site rather than naturally occurring background conditions or impacts from other legacy mining or milling operations which operated to the north and upgradient of the site.

Based on the USGS recommendations, the EPA first requested Homestake to perform the sampling and provide supporting information for the relatively high uranium concentrations detected in the background well. Due to Homestake's reluctance to collect additional data, EPA made the decision to conduct the sampling and determine if the background well (DD) was impacted from seepage from the LTP.

2. Who at the EPA is responsible for this decision for further sampling?

The EPA Remedial Project Manager (RPM) is responsible for managing assessment and cleanup at the Homestake Site, utilizing the Site team (including in-house and outside technical specialists) to discuss the issues and make recommendations to the Superfund Division Director. The RPM can also draw

upon the findings of the EPA Region 6 Superfund Division Grants Mining District Team, conducting activities under the Five Year Plan.

3. What is the intended goal for this decision for further sampling?

The goal of this project is to determine the source of contamination in the background well. The EPA is trying to determine if the source of contamination is natural, legacy mining or impacted by Homestake operations. The integrated, field-based approach, between geophysical logging, contaminant profiling, and chemical signature identification is a comprehensive approach to obtaining additional lines of evidence in the identification of uranium background concentrations.

4. Has EPA altered groundwater guidance?

No, the EPA has not altered groundwater guidance recently that relates to the site issues.

5. According to the Memorandum of Understanding between NRC and the EPA, which was established to avoid dual regulation of the Site, the NRC is the primary oversight agency for Homestake. Has EPA Region 6 openly cooperated with NRC's lead regulator for the Homestake remediation activities?

Under the 1993 Memorandum of Understanding (MOU) between NRC and EPA (Enclosure 2), the NRC is the lead regulator for the byproduct material disposal area (LTP) reclamation and closure activities and EPA is responsible for ensuring that NRC cleanup activities meet CERCLA criteria at the Site. The EPA has been performing the current ground water investigation with transparency, including NRC, New Mexico Environment Department (NMED) and Department of Energy (DOE) in technical meetings with Homestake to discuss the groundwater issues. At NRC's invitation, EPA, DOE and NMED also participate in routine monthly technical site status teleconferences with Homestake.

6. Has there been a change within the Memorandum of Understanding as to which agency is the lead regulator?

Changes to the MOU in recent years at NRC's request did not change the roles established in the 1993 MOU, which are qualitatively different. NRC regulates the Homestake mill site, including closure activities, under the NRC License. As a remedial, not a regulatory program, the EPA Superfund role is to ensure that the Site (the area of contamination from the Homestake facility both inside and outside the NRC license boundary) meets Superfund cleanup standards so that it can be taken off of the Superfund National Priorities List once Site response is completed. While most of the requirements imposed on Homestake by NRC under the license and by EPA under the National Contingency Plan are the same, there are a few instances where the requirements are different.